



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/784,809

02/14/2001

Julian Orbanes

GPH-002D (6934/5)

4077

21323

7590

03/26/2004

TESTA, HURWITZ & THIBEAULT, LLP
HIGH STREET TOWER
125 HIGH STREET
BOSTON, MA 02110

EXAMINER

WOOD, WILLIAM H

ART UNIT

PAPER NUMBER

2124

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/784,809

Applicant(s)

ORBANES ET AL.

Examiner

William H. Wood

Art Unit

2124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-36 are pending and have been examined.

Specification

1. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code (see page 46, line 10). Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.
2. The disclosure is objected to because of the following informalities: page 1, lines 5 and 7 contain missing application numbers. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The undescribed subject matter relates to the process of combining functional aspects of the operators and hubs using adapters. Page 21, line 7 to page 25, line 9 seem to be describing the process, yet in vague terms. It is unclear that the general connection terminology would enable one to make or use the invention without undue experimentation. Simply using "adapters" to convert or translate object protocols

Art Unit: 2124

does not adequately explain *how* the adapters perform this function. It is unclear whether the adapters would allow any component to communicate with any other component no matter how dissimilar the two components may be.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Independent claim 1 contains numerous open-ended terms: associated operator (line 4, unclear with what the operator is associated); interconnection of at least one operator (line 5, unclear with what the operator is interconnected); and combine functional aspects (line 7, unclear with what the functional aspects are combined). Independent claim 22 contains similar deficiencies.

6. Claims 13, 14, 20 and 21 recites the limitation "external source". There is insufficient antecedent basis for this limitation in the claim. A possible solution is to make the claims dependent on claim 9. Claims 30 and 31 have the same problem with respect to claim 26.

7. Claim 21 recites the limitation "said graphical representation". There is insufficient antecedent basis for this limitation in the claim. A possible solution is to make the claim dependent on claim 19.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-7, 9, 12, 14-18, 20, 22-24, 26-29, 31-33 and 35 are rejected under 35 U.S.C. 102(e) as being anticipated by **Brumme** et al. (USPN 6,134,559).

Claim 1

Brumme disclosed a visual programming system (*column 1, lines 10-14; a programming environment must inherently provide input and output for a user and overwhelmingly this has been through some sort of graphic or text to be visualized*) comprising,

- ♦ a hub and one or more adapters (*Figure 1*), said hub configured to communicate information with said one or more adapters by way of a common protocol (*column 7, lines 9-17; column 4, lines 6-10; column 4, lines 16-19; the uniform object model*), each of said one or more adapters being configured to communicate information between said hub and an associated operator (*Figure 1*), and

Art Unit: 2124

- ♦ a user input interface that receives input from a user directing interconnection of at least one operator (*column 1, lines 10-14; and column 35, lines 23-49*),
- ♦ wherein said system is further adapted to automatedly combine functional aspects of said at least one operator in response to said input from said user (*column 4, lines 1-11*).

Claim 2

Brumme disclosed the visual programming system of claim 1, wherein each of said one or more adapters is further configured to translate said common protocol to a protocol of said associated operator (*column 7, lines 45-49*).

Claim 3

Brumme disclosed the visual programming system of claim 1 wherein each of said one or more adapters is further configured to translate said common protocol to a protocol of said associated operator, said associated operator communicates according to a communication protocol different from said common protocol (*column 7, lines 45-49*).

Claim 4

Brumme disclosed the visual programming system of claim 1, wherein said system is further adapted to automatedly combine functional aspects of said a first operator and a second operator in response to said input from said user by communicatively connecting said first operator to said hub via a first one of said one or more adapters,

Art Unit: 2124

and said second operator to said hub via a second one of said one or more adapters
(*Figure 1; column 8, lines 5-15; column 10, lines 55-67*).

Claim 5

Brumme disclosed the visual programming system of claim 1, wherein each of said one or more adapters has a first interface substantially identical to a first interface of another adapter (*Figure 1*).

Claim 6

Brumme disclosed the visual programming system of claim 1, wherein at least one of said one or more adapters has a first interface and a second interface, said first and second interfaces communicating bidirectionally (*Figure 1; column 10, lines 55-56*).

Claim 7

Brumme disclosed the visual programming system of claim 1, wherein a number representing a quantity of said one or more adapters that are unique is less than or equal to a number representing a quantity of said operators (*Figure 3*).

Claim 9

Brumme disclosed the visual programming system of claim 1, wherein at least one of said operators is derived from an external source (*Figure 1; "foreign" sources to the uniform object model are "external" to that model*).

Claim 12

Brumme disclosed the visual programming system of claim 9, wherein said external source is derived from said user (*column 21, lines 5-28; and column 35, lines 23-49*).

Claim 14

Brumme disclosed the visual programming system of claim 1, wherein said external source is a legacy database (*Figure 1, element 140*).

Claim 15

Brumme disclosed the visual programming system of claim 1, further adapted to enable interoperation of a first functional aspect of one said operator with a second functional aspect of said one operator (*column 4, lines 1-28; and column 6, lines 32-48*).

Claim 16

Brumme disclosed the visual programming system of claim 1, further adapted to contextually activate said functional aspects of said at least one operator ("*contextually activate*" interpreted as the system being able to access functionality of the operators; *column 4, lines 1-28; and column 10, lines 55-67*).

Art Unit: 2124

Claim 17

Brumme disclosed the visual programming system of claim 1, wherein at least one of said operators is an application software program (*column 18, line 56 to column 19, line 61; uniform object model using objects from other types of applications*).

Claim 18

Brumme disclosed the visual programming system of claim 1, wherein said system is further adapted to combine functional aspects of a single said operator in response to said input from said user (*column 4, lines 1-28; column 21, lines 5-28; and column 35, lines 23-49*).

Claim 20

Bumme disclosed the visual programming system of claim 14, wherein said functional aspect is an output from said operator (*column 4, lines 1-28; Figure 1; clearly part of the function of the foreign objects (operator) is output*).

Claim 22

See claim 1 above.

Art Unit: 2124

Claim 23

Brumme disclosed the visual programming method of claim 22, wherein each operator has an associated protocol, and wherein said method further comprises translating from said associated protocol to a common protocol (*column 21, lines 53-62*).

Claim 24

See claim 2, above.

Claim 26

See claim 9, above.

Claim 29

See claim 12, above.

Claim 31

See claim 14, above.

Claim 32

See claim 17, above.

Claim 33

See claim 18, above.

Claim 35

See claim 20, above.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 10, 13, 27 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Brumme** et al. (USPN 6,134,559).

Claim 10

Brumme did not explicitly state the visual programming system of claim 9, wherein said external source is a Web site. Official Notice is taken that it was known at the time of invention to provide components and objects of software through the World Wide Web. It would have been obvious to one of ordinary skill in the art at the time of invention to implement the programming system of **Brumme** with web provided foreign objects. This implementation would have been obvious because one of ordinary skill in the art would be motivated to make use of a medium which provides highly accessible

Art Unit: 2124

information to a highly distributed programming population (thus making efficient large organizations).

Claim 13

Brumme did not explicitly state the visual programming system of claim 1, wherein said external source is a file system. **Brumme** demonstrated that it was known at the time of invention to make use of a memory structure (column 34, line 38 to column 35, line 22), including storing software (column 35, lines 1-5 and column 35, lines 10-13). Additionally, **Brumme** demonstrated use of files and thus a file system (column 6, lines 65-67). It would have been obvious to one of ordinary skill in the art at the time of invention to implement **Brumme** with foreign objects in a file system as found in **Brumme**'s teaching. This implementation would have been obvious because one of ordinary skill in the art would be motivated to make use of a file systems organizational structure for storing information and make use of an extremely common system and thus easily implemented.

Claim 27

See claim 10, above.

Claim 30

See claim 13, above.

Art Unit: 2124

12. Claims 8 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Brumme** et al. (USPN 6,134,559) in view of **Wold** et al. (USPN 5,386,568).

Claim 8

Burmme did not explicitly state the visual programming system of claim 1, wherein an operator has an input port and an output port, each port communicating at least unidirectionally. **Wold** demonstrated that it was known at the time of invention to provide both input and output ports of at least unidirectional nature (Figures 1 and 8). It would have been obvious to one of ordinary skill in the art at the time of invention to implement the programming system of **Brumme** with input and output ports as found in **Wold's** teaching. This implementation would have been obvious because one of ordinary skill in the art would be motivated to give greater control to a user over the connection of modules (column 3, lines 46-56; thus either more user-friendly or more applicable to a user's needs).

Claim 25

See claim 8, above.

13. Claims 11, 19, 21, 28, 34 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Brumme** et al. (USPN 6,134,559) in view of **Coco** et al. (USPN 6,331,864).

Art Unit: 2124

Claim 11

Brumme did not explicitly state the visual programming system of claim 9, wherein said external source is substantially real-time information source. **Coco** demonstrated that it was known at the time of invention to develop system of graphically/visually manipulating programming components in "real-time" (column 2, lines 24-27; lines 31-34; Figure 3). It would have been obvious to one of ordinary skill in the art at the time of invention to implement the programming system of **Brumme** with real-time representation as found in **Coco's** teaching. This implementation would have been obvious because one of ordinary skill in the art would be motivated to aid users with little or no programming experience to rapidly develop applications/programs (column 2, lines 29-42).

Claim 19

Brumme did not explicitly state the visual programming system of claim 1, wherein said system is further adapted to generate a graphical representation of operation of a functional aspect of at least one said operator. **Coco** demonstrated that it was known at the time of invention to make use of graphical representation of programming (column 2, lines 24-27). It would have been obvious to one of ordinary skill in the art at the time of invention to implement the programming system of **Coco** with visual/graphical representations of the operation of a functional aspect of the operators as found in **Coco's** teaching. This implementation would have been obvious because one of

Art Unit: 2124

ordinary skill in the art would be motivated to aid users of limited programming ability with an easy to use interface (column 2, lines 29-41).

Claim 21

Brumme did not explicitly state the visual programming system of claim 14, wherein said system is further adapted to said graphical representation of said operation of said functional aspect substantially in real-time. **Coco** demonstrated that it was known at the time of invention to develop system of graphically/visually manipulating programming in “real-time” (column 2, lines 24-27; lines 31-34). It would have been obvious to one of ordinary skill in the art at the time of invention to implement the programming system of **Brumme** with real-time representation as found in **Coco**’s teaching. This implementation would have been obvious because one of ordinary skill in the art would be motivated to aid users with little or no programming experience to rapidly develop applications/programs (column 2, lines 29-42).

Claim 28

See claim 11, above.

Claim 34

See claim 19, above.

Art Unit: 2124

Claim 36

See claim 21, above.

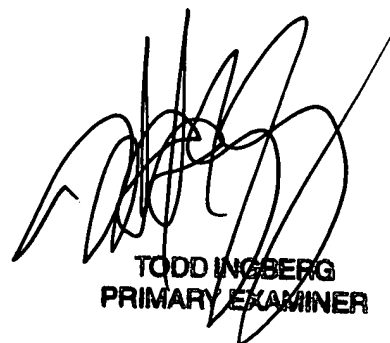
Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Wood whose telephone number is (703)305-3305. The examiner can normally be reached 7:30am - 5:00pm Monday thru Thursday and 7:30am - 4:00pm every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703)305-9662. The fax phone numbers for the organization where this application or proceeding is assigned are (703)746-7239 for regular communications and (703)746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

William H. Wood
March 18, 2004



TODD INBERG
PRIMARY EXAMINER